



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,371	12/15/2000	Franck Barillaud	AUS920000805US1	9807

7590

10/20/2005

Frank C. Nicholas
CARDINAL LAW GROUP
1603 Orrington Avenue, Suite 2000
Evanston, IL 60201

EXAMINER

CHEA, PHILIP J

ART UNIT

PAPER NUMBER

2153

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/738,371

Applicant(s)

BARILLAUD ET AL.

Examiner

Philip J. Chea

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to an Amendment filed July 21, 2005. Claims 1, 2, 4-12, and 14-20 are currently pending. Any rejection not set forth below has been overcome by the current Amendment.

Claim Rejections - 35 USC § 103

1. Claims 1, 2, 4-12, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anerousis et al. (US 6,760,775), herein referred to as Anerousis, and further in view of Liron (US 5,598,532).

As per claims 1, and 15, Anerousis discloses a method for allocating a service on a network, as claimed, comprising:

- collecting a set of performance data representative of a set of physical characteristics of the network (see column 8, lines 17-45);
- identifying a plurality of node clusters (see column 8, lines 17-45);
- correlating at least one property of each of the identified node clusters with at least one performance rule to determine a compliance of the node cluster to the performance rule (see column 8, lines 45-53); and
- allocating the service to one of the complying node clusters (see columns 8 and 9, lines 62-67 and 1-4).

Although the system disclosed by Anerousis shows substantial features of the claimed invention (discussed above), it fails to disclose that the identification is in response to the collection of the set of performance data.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Anerousis, as evidenced by Liron.

Art Unit: 2153

In an analogous art, Liron discloses collecting a set of performance data and identifying a plurality of node clusters in response to the data (see column 5, lines 19-36).

Given the teaching of Liron, a person having ordinary skill in the art would have obviously recognized the desirability and advantages of modifying Anerousis by identifying a plurality node clusters in response to a collection of performance data, such as disclosed by Liron, in order to improve traffic flow and balance traffic flow requirements between work groups (see Liron column 2, lines 12-22).

As per claim 2, Anerousis in view of Liron further disclose providing a map as a result of said correlation, said map including a first cluster of said plurality of clusters for supporting the service on the network (see Anerousis column 8, lines 45-53).

As per claim 4, Anerousis in view of Liron further disclose wherein the map includes at least one server within the first cluster for supporting the service on the network (see Anerousis column 8, lines 17-53).

As per claim 5, Anerousis in view of Liron further disclose allocating the service to the first server (see Anerousis column 8, lines 17-53).

As per claims 6, 10, and 17, Anerousis in view of Liron further disclose wherein collecting the set of performance data representative of the set of physical characteristics of the network comprises probing the network for a round trip time (see Liron column 6, lines 42-44 and column 8, lines 3-17). In order minimize the delay time, the round trip time is implied within that calculation.

As per claims 7, 11, and 18, Anerousis in view of Liron further disclose wherein collecting the set of performance data representative of the set of physical characteristics of the network comprises probing the network for a hop count (see Liron column 6, lines 46-48).

As per claims 8, 12, and 19, Anerousis in view of Liron further disclose wherein collecting the set of performance data representative of the set of physical characteristics of the network comprises probing the network for bottleneck link speed (see Liron column 6, lines 54-57). In order to minimize the link bandwidth, the link speed is inherent in that calculation.

Art Unit: 2153

As per claims 9 and 16, Anerousis discloses a distributed computer system, as claimed, comprising:

- a plurality of interconnected nodes (see Fig. 3 [330],[335]); and
- a server operable to allocate a service for said plurality of interconnected nodes, said server including (see column 8, lines 17-45)
- a probe operable to provide a set of performance data as related to a set of physical characteristics of said plurality of interconnected nodes (see column 8, lines 17-45),
- a module operable to identify a plurality of node clusters within a network (see column 8, lines 17-45); and
- an engine operable to utilize at least one performance rule for said plurality of node clusters as related to said service to identify a first node cluster of said plurality of node clusters for supporting said service for said plurality of interconnected nodes (see column 8, lines 45-53),
- wherein the engine is further operable to provide a map representative of each node cluster in compliance with at least one performance rule as related to the service and to allocate the service to one of the complying node clusters (see column 8, lines 45-53).

Although the system disclosed by Anerousis shows substantial features of the claimed invention (discussed above), it fails to disclose that the identification is in response to the collection of the set of performance data.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Anerousis, as evidenced by Liron.

In an analogous art, Liron discloses collecting a set of performance data and identifying a plurality of node clusters in response to the data (see column 5, lines 19-36).

Given the teaching of Liron, a person having ordinary skill in the art would have obviously recognized the desirability and advantages of modifying Anerousis by identifying a plurality node clusters in response to a collection of performance data, such as disclosed by Liron, in order to improve traffic flow and balance traffic flow requirements between work groups (see Liron column 2, lines 12-22).

Art Unit: 2153

2. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anerousis in view of Liron as applied to claims 9 and 16 above, and further in view of Johnson (U.S. 6,078,946). Although Anerousis in view of Liron discloses substantial features of the claimed invention (discussed above), he fails to directly disclose the module being a neural network. However, these features are well known in the art and would have been an obvious modification of the system disclosed by Anerousis in view of Liron, as evidenced by Johnson.

In an analogous art, Johnson discloses a network management system, which uses a neural network module for optimizing resources (column 5, lines 41-46).

Given the teaching of Johnson, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Anerousis in view of Liron by employing a neural network module, such as disclosed by Johnson, in order to gain the best results available for a set of input data (column 3, lines 19-23).

Response to Arguments

3. Applicant's arguments filed July 27, 2005 have been fully considered but they are not persuasive.

(A) Applicant contends Anerousis does not teach or suggest the allocation of service to one of the complying node clusters.

(B) Applicant contends Anerousis does not teach collecting a set of performance data representative of a set of physical characteristics of the network, identifying a plurality of node clusters in response to said collection of said set of performance data and correlating at least one property of each of the identified node clusters with at least one performance rule to determine a compliance of the node cluster to the performance rule.

(C) Applicant contends Anerousis alone or in combination with Liron does not teach that a map includes at least one server within a first cluster of plurality of clusters for supporting the service on the

Art Unit: 2153

network as recited in claim 4 or allocating the service to a first server of said at least one server as recited in claim 5.

(D) Applicant contends Anerousis fails to teach or suggest "means for collecting a set of performance data relating to a set of physical characteristics of a network; a means for identifying a plurality of node clusters in response to said set of performance data; a means for correlating at least one property of each of the identified node clusters with at least one performance rule to determine a compliance of the node cluster to the performance rule" as cited in claim 15.

(E) Applicant contends Anerousis fails to teach or suggest "an engine operable to utilize at least one performance rule for said plurality of node clusters as related to the service to identify a first node cluster of said plurality of node clusters for supporting the service for the plurality of interconnected nodes, wherein the engine is further operable to provide a map representative of each node cluster in compliance with at least one performance rule as related to the service and to allocate the service to one of the complying node clusters".

In considering (A), the Examiner respectfully disagrees. The Examiner believes the service being allocated is fulfilling the request of a client (see Anerousis column 4, lines 2-5). The service is allocated to the client at the time of the request. Any other time, the server is idle and not allocating any services, but once a client makes a request, that request is routed to the most appropriate server that can fulfill the network service request (i.e. allocating resources such as memory and CPU time to service a client). Therefore, the Examiner thinks there is enough evidence to support allocation of service.

In considering (B), the Examiner respectfully disagrees. Anerousis collects a set of performance data representative of physical characteristics of the network by accepting advertisements of virtual hosts and their addresses (see column 8, lines 31-40). These are later used in determining a site-specific SLR to route data based on load, cost, or proximity metric (see column 8, lines 45-53). Anerousis identifies a plurality of node clusters, but does not do this in response to said collection of said set of performance data. However, the Examiner believes Liron makes up for this shortcoming, as shown in the rejection to claim 1 above. Anerousis teaches correlating at least one property of each of the identified node clusters

Art Unit: 2153

with at least one performance rule to determine a compliance of the node cluster to the performance rule (see column 8, lines 45-53). The Examiner believes that selecting a site-specific SLR cluster based on load, cost, or proximity metric is enough evidence to apply Anerousis in teaching the above limitation.

In considering (C), the Examiner respectfully disagrees. The Examiner believes to have shown evidence that Anerousis reads on the limitation of allocating a service to a node cluster. The map is inherently disclosed by Anerousis in column 8, lines 45-53, when a site-specific SLR cluster is picked to route traffic to a specific virtual host within the cluster. The inherent map allows the traffic to be directed to the correct virtual host. Also see column 6, lines 22-24, where virtual hosts can be determined through a service level routing map.

In considering (D), the Examiner respectfully disagrees. Please see response to (A).

In considering (E), the Examiner respectfully disagrees. In the discussion above regarding (A), the Examiner has shown evidence that Anerousis discloses that an engine utilizes performance rules of a service to identify a node cluster. In the discussion above regarding (C), the Examiner has shown evidence that Anerousis discloses that an engine creates a map of the node cluster to which to allocate that service.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2153

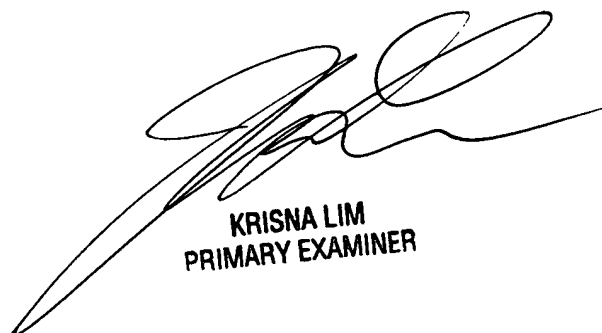
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Chea whose telephone number is 571-272-3951. The examiner can normally be reached on M-F 7:00-4:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Philip J Chea
Examiner
Art Unit 2153

PJC 10/5/05



KRISNA LIM
PRIMARY EXAMINER